

REMARKS

Claims 1-9, and 11-20 are pending and under consideration. Claim 11 is amended herein. Support for the amendment to claim 11 may be found in the claims as originally filed and at page 10, lines 17-22, page 11, lines 1-13, and Figs. 5A and 5B of the specification. Reconsideration is requested based on the foregoing amendment and the following remarks.

Response to Arguments:

The Applicants appreciate the consideration given to their arguments. The Applicants, however, are disappointed that their arguments were not found to be persuasive. The Office Action asserts at page 12, lines of 16 and 17 that:

Applicant appears to be arguing that the third task was never previously executed.

This is submitted to be incorrect. The recited third task may well have been executed at some other time. The Applicant is arguing rather that the third data processing task is a different task than the second data processing task, which in turn is a different task than the first data processing task. Since the data processing unit in Fleck, on the other hand, returns an address and context of a *previous executing task*, as noted in the Advisory Action mailed June 19, 2006, the task to which the data processing unit in Fleck returns cannot be a "third data processing task," which is a different task than a second data processing task, and which in turn is a different task than a first data processing task, as recited in claim 1, as well.

In addition, although, as noted in the Office Action at page 12, lines 18 and 19, "the claims allow for the third task to be previously executed," the claims do not recite the third task being either the second or the first tasks, and Fleck cannot show a "task switching function executing a return operation to the third data processing task," as recited in, for example, claim 1.

Furthermore, although, as noted in the Office Action at page 12, lines 19 through 21:

In addition, since a **return** address is what is selected by the task switching function, it would naturally be interpreted as returning execution to the task and thereby must have been previously executed.

This is not the case with the claimed invention. In the claimed invention, rather, the task switching function is "executing a return operation to the third data processing task," as recited in claim 1, not the second data processing task, nor the first data processing task, whether or not the third data processing task was ever executed previously.

The Office Action goes on to assert beginning at page 12, line 21, and continuing at page 13, line 1 that:

Otherwise, one would simply select an/the address of the third task.

Even so, even if someone would have *selected* the address of the third task, there is still no evidence of record to suggest that anyone ever thought of "the task switching function executing a return operation to the third data processing task," as recited in, for example, claim 1.

The Office Action goes on to assert at page 13, lines 1, 2, and 3, that:

By defining the address as a return address of the task, the claims allude to returning execution control to the task at this address.

Interpretation of a claim, however, depends on what a claim *recites*, rather than to what the claim alludes. In this case, claim 1, for example, recites "the task switching function executing a return operation to the third data processing task."

The Office Action goes on to assert at page 13, line 3, that:

The specification supports this interpretation.

To the contrary, as described in the specification, rather, at page 11, lines 5-8:

At 57, the second task executes until a task switch opportunity occurs. When a task switch opportunity occurs, the second task calls the task switch function at 58, thereby causing the context of the second task to be stored. At 59, the task switching function loads the context pointers for a third task, and at 501 that task switch function returns to the third task. At 502, the third task executes until a task switch opportunity occurs, whereupon the third task calls the task switch function at 503.

So "the task switching function executing a return operation to the third data processing task," as recited in, for example, claim 1, is supported by the specification.

The Office Action asserts at page 13, lines 3 to 6, that:

Therefore, the claims are interpreted as the first task invoking the task switching function to return control to a second previously executed task, and the second previously executed task returning control to a third previously executed task.

Even if, however, the claims were interpreted this way, Fleck still does not show a second previously executed task *returning* control to a third, *i.e.* separate from the second or the first, previously executed task, let alone "the task switching function executing a return operation to the third data processing task," as recited in, for example, claim 1.

Furthermore, as noted in the Office Action at page 13, lines 20 and 21, Fleck switches

back from a called function or trapdoor interrupt handler to the *previous* context. This is to be contrasted with the claimed invention, in which "the task switching function executing a return operation to the third data processing task," as recited in, for example, claim 1. Since, rather, as noted in the Office Action, Fleck switches back to the previous context, Fleck is not "executing a return operation to the third data processing task," as recited in, for example, claim 1.

Furthermore, even though, as noted at page 14, lines 4, 5, and 6 of the Office Action, "Fleck also teaches on figure 4 that the PCX has three contexts which would be associated with three previously executing tasks/interrupt handlers," there is still no teaching in Fleck of "executing a return operation to the third data processing task," as recited in, for example, claim 1. In Fleck, rather, a processor context to be saved is written into the CSA3, which has been transferred to the *front* of the previous context list. Thus, even though Fleck *shows* three context save areas in Fig. 4, only the context save area in the front of the previous context list ever gets written to. In particular, as described at column 7, lines 6 to 9:

The context and context switch registers now look like the diagram shown in FIG. 4. The processor context to be saved can now be written into the rest of the CSA3 which has been transferred to the front of the previous context list.

Since, in Fleck, processor context to be saved is written into the CSA3, which has been transferred to the front of the previous context list, Fleck is not "executing a return operation to the third data processing task," as recited in, for example, claim 1.

Finally, the Office Action asserts at page 14, lines 18 to 21, that:

As outlined above, Fleck moves a pointer-referenced context to be loaded based on a return instruction. The referenced context is loaded into registers such that the previously executing task/interrupt handler is executed.

Loading a referenced context into registers such that the previously executing task/interrupt handler is executed, however, does not amount to "indicating a return instruction for moving said return address from said second storage location to a register of the data processor," as recited in claim 11, where the return address corresponds to a third task, as also recited in claim 11.

Still, in the interest of compact prosecution only, and not for any reason of patentability, claim 11 has been amended further to recite, "the memory management apparatus responsive to said instruction information indicating a return instruction for moving said return address corresponding to said third task from said second storage location to a register of the data processor." Further reconsideration is thus requested.

Rejection Under 35 U.S.C. § 102:

Claims 1-8, 11-17, and 19 were rejected under 35 U.S.C. § 102(b) as anticipated by Fleck et al., US 6,128,641 (hereinafter “Fleck”). The rejection is traversed to the extent it might apply to the claims as amended. Reconsideration of the rejection is respectfully requested.

Claim 1 recites:

The task switching function executing a return operation to the third data processing task.

Fleck neither teaches, discloses, nor suggests “the task switching function executing a return operation to the third data processing task,” as recited in claim 1. The Office Action does not even assert specifically that Fleck does teach a task switching function “executing a return operation to the third data processing task,” as recited in claim 1. Furthermore, even though Fleck shows three context save areas in Fig. 4, only the context save area in the front of the previous context list ever gets written to, as discussed above. Since, in Fleck, rather, the processor context is simply saved to whichever context save area has been transferred to the front of the previous context list, which in this case is the CSA3, Fleck is not “executing a return operation to the third data processing task,” as recited in claim 1. Claim 1 is thus submitted to be allowable. Withdrawal of the rejection of claim 1 is earnestly solicited.

Claims 2-8 depend from claim 1 and add further distinguishing elements. Claims 2-8 are thus also submitted to be allowable. Withdrawal of the rejection of claims 2-8 is earnestly solicited.

Claims 11-16:

Claim 11 recites:

The memory management apparatus responsive to said instruction information indicating a return instruction for moving said return address corresponding to said third task from said second storage location to a register of the data processor

Fleck neither teaches, discloses, nor suggests “the memory management apparatus responsive to said instruction information indicating a return instruction for moving said return address corresponding to said third task from said second storage location to a register of the data processor,” as discussed above with respect to the rejection of claim 1. Claim 11 is thus submitted to be allowable. Withdrawal of the rejection of claim 11 is earnestly solicited.

Claims 12-16 depend from claim 11 and add further distinguishing elements. Claims 12-

16 are thus also submitted to be allowable. Withdrawal of the rejection of claims 12-16 is earnestly solicited.

Claim 17:

Claim 17 recites:

The task switcher switching from execution of the second task to execution of a third task, said memory having a storage location for storing a return address corresponding to the third task, and an input for receiving information indicative of instructions of a task switching function that has been called by the second task.

Fleck neither teaches, discloses, nor suggests "the task switcher switching from execution of the second task to execution of a third task, said memory having a storage location for storing a return address corresponding to the third task, and an input for receiving information indicative of instructions of a task switching function that has been called by the second task," as discussed above with respect to the rejection of claim 1. Claim 17 is thus submitted to be allowable. Withdrawal of the rejection of claim 17 is earnestly solicited.

Rejection Under 35 U.S.C. § 103:

Claims 18 was rejected under 35 U.S.C. § 103(a) as unpatentable over Fleck. Claim 18 depends from claim 17 and adds further distinguishing elements. Fleck neither teaches, discloses, nor suggests "the task switcher switching from execution of the second task to execution of a third task, said memory having a storage location for storing a return address corresponding to the third task, and an input for receiving information indicative of instructions of a task switching function that has been called by the second task," as discussed above with respect to the rejection of claim 17. Claim 18 is thus also submitted to be allowable. Withdrawal of the rejection of claim 18 is earnestly solicited.

Claims 9 and 20:

Claims 9 and 20 were rejected under 35 U.S.C. § 103(a) as unpatentable over Fleck in view of "Applicant's Admitted Prior Art." Claims 9 and 20 depend from claims 1 and 17, respectively and add further distinguishing elements. Fleck neither teaches, discloses, nor suggests "the task switching function executing a return operation to the third data processing task," as discussed above with respect to the rejections of claim 1. Fleck neither teaches, discloses, nor suggests "the task switcher switching from execution of the second task to execution of a third task, said memory having a storage location for storing a return address corresponding to the third task, and an input for receiving information indicative of instructions of

a task switching function that has been called by the second task," as discussed above with respect to the rejection of claim 17. The parts of the Application labeled "Prior Art" do not either, and thus cannot make up for the deficiencies of Fleck with respect to claims 9 and 20. Claims 9 and 20 are thus submitted to be allowable. Withdrawal of the rejection of claims 9 and 20 is earnestly solicited.

Conclusion:

Claims 1-9, and 11-20 are submitted to be allowable over the cited references. There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

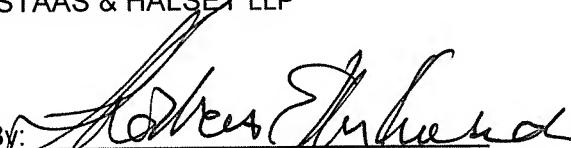
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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